What is claimed is:

1. A distance measuring device, in particular a laser distance measuring device, comprising at least one oscillator (26) which produces a basic signal at a fundamental frequency ($f_0$) and a first circuit device (30) which produces a first signal at a first frequency ($f_1$) which is higher than that of the fundamental frequency ($f_0$),
whereby the first circuit device (30) comprises at least one PLL circuit (32) and a VCO circuit (34).

2. The distance measuring device as recited in Claim 1,
wherein the first circuit device (30) includes an LC filter (35) located downstream from the VCO circuit (34).

3. The distance measuring device as recited in Claim 1 or 2,
characterized by a frequency divider (36) which is integrated in the PLL circuit (32).

4. The distance measuring device as recited in one of the preceding claims, characterized by a phase-shifting element (40) which produces a second signal out of the basic signal at a second frequency which differs from the fundamental frequency ($f_0$) by transferring an input signal between discrete phase positions, whereby a second circuit device (30') is located downstream from a PLL circuit (32') and a VCO circuit (34') which produces a third signal at a third frequency ($f'_1$) which is higher than the second frequency.

5. The distance measuring device as recited in one of the preceding claims, wherein the circuit device (30, 30') is provided which multiplies its input frequency by a non-linear multiple.